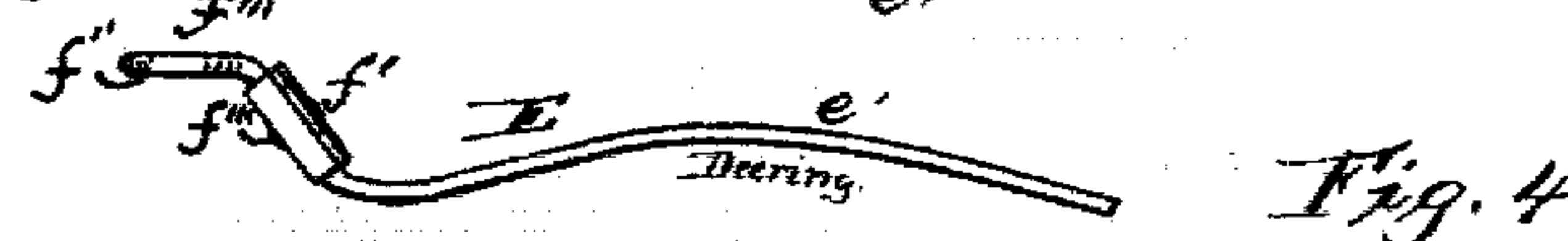
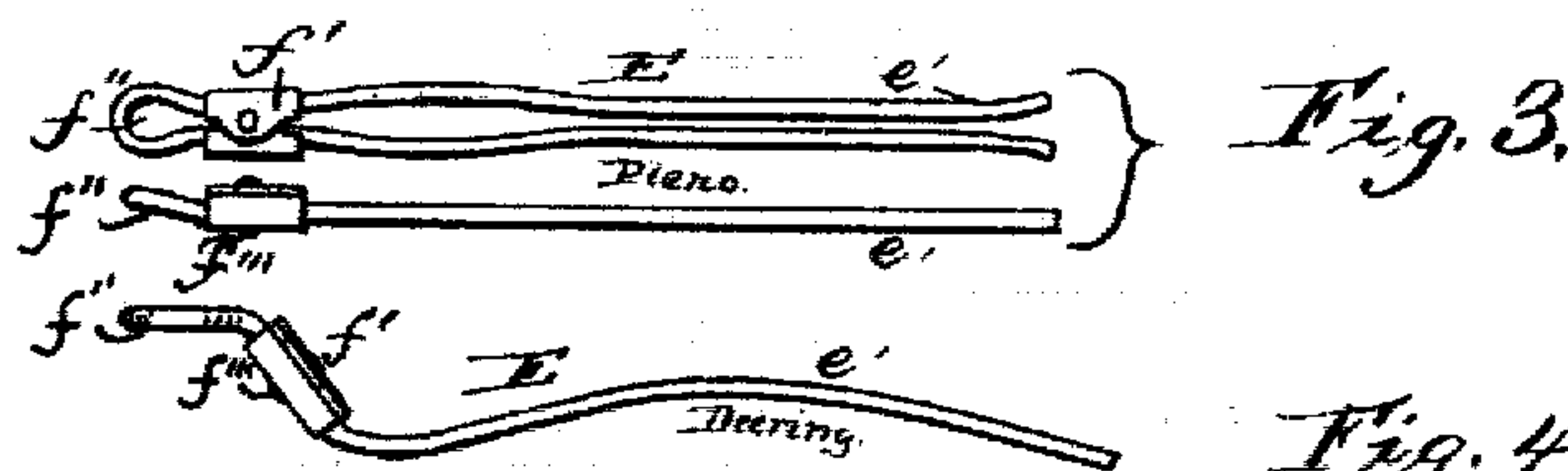
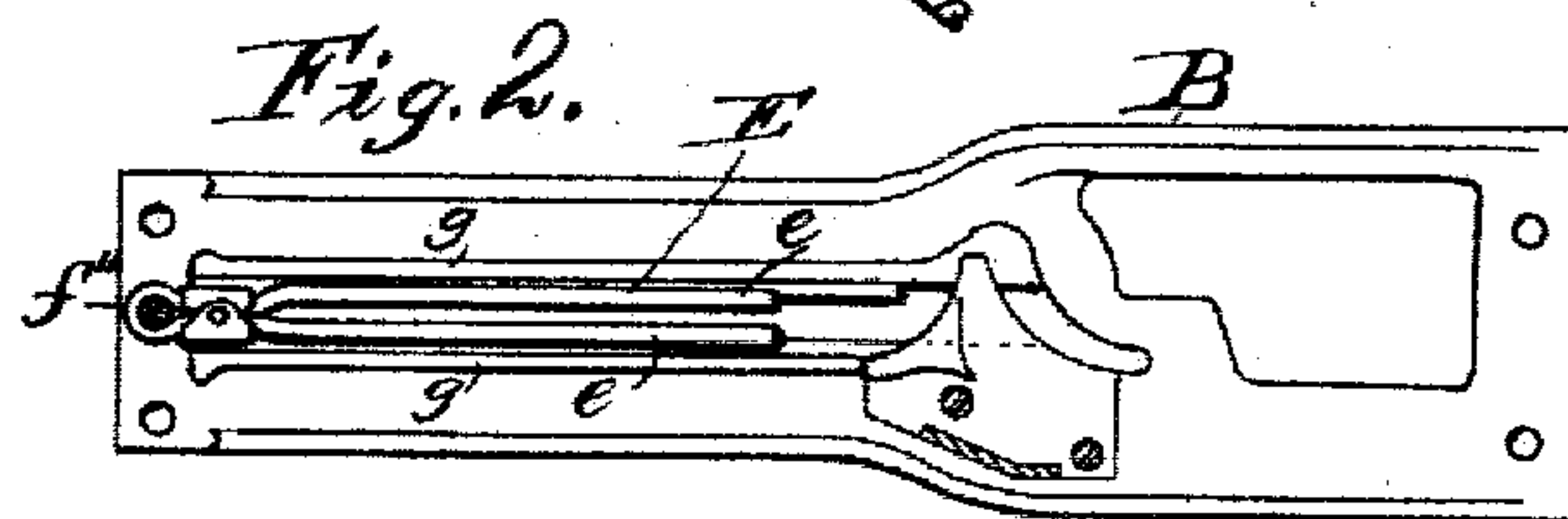
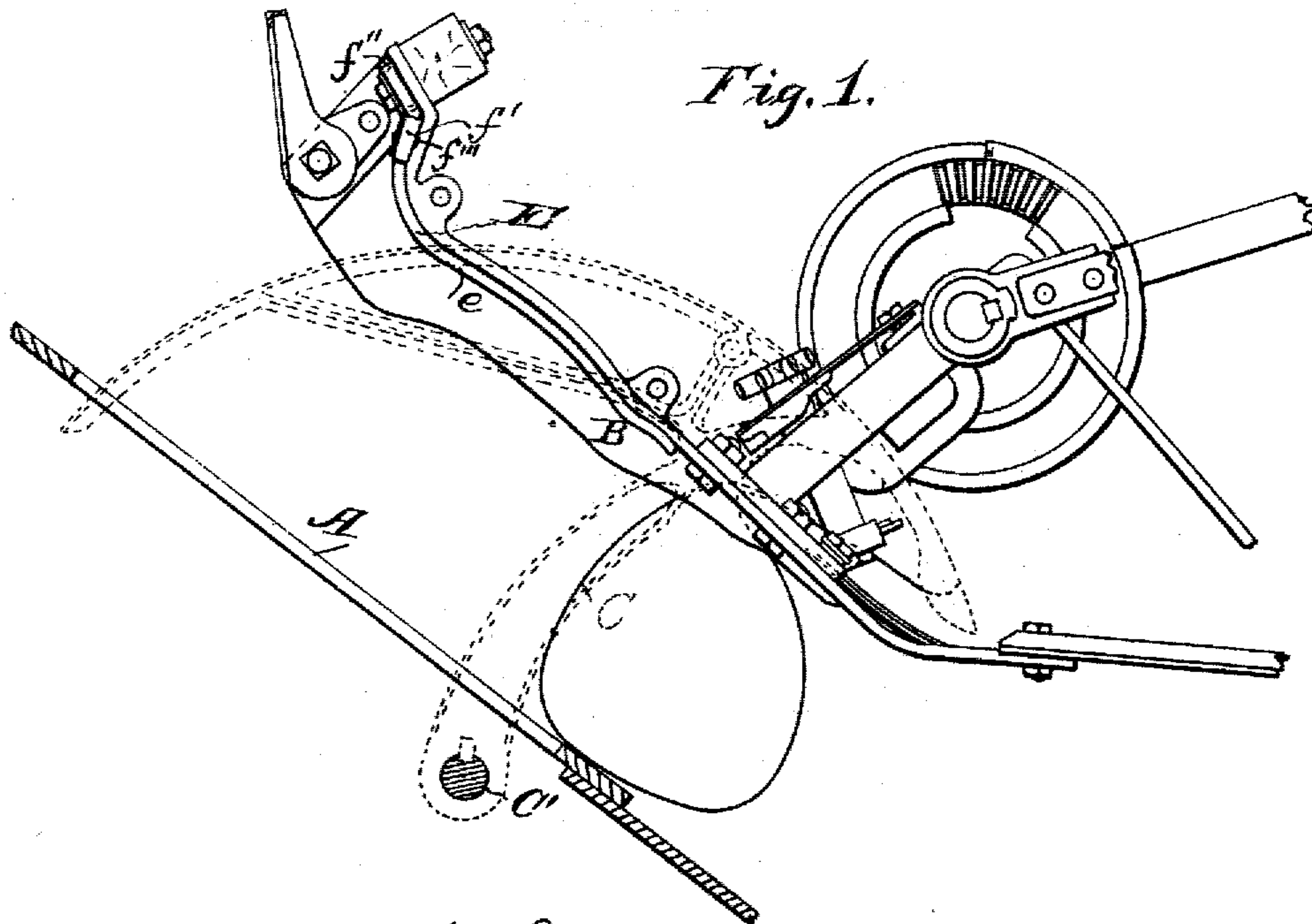


No. 814,347.

PATENTED MAR. 6, 1906.

S. W. BERRY.
ATTACHMENT FOR GRAIN BINDERS.
APPLICATION FILED AUG. 5, 1905.



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ATTACHMENT FOR GRAIN-BINDERS.

No. 814,347.

Specification of Letters Patent.

Patented March 6, 1906.

Application filed August 5, 1905. Serial No. 272,912.

To all whom it may concern:

Be it known that I, SHEPHERD W. BERRY, a citizen of the United States, residing at Lawrence, in the county of Douglas and State of Kansas, have invented certain new and useful Improvements in Attachments for Grain-Binders, of which the following is a specification.

This invention relates to certain improvements in attachments for breastplates of cord-binding harvesters, the purpose of the invention being to provide means whereby the straw will be prevented from being carried by the needle through the slot in the breastplate and to the knotter mechanism; and my invention consists in providing the breastplate of a grain-binder with a spring that is constructed to provide a pair of spring-arms that are maintained below the slot of the breastplate, so that the resilient arms may be engaged and separated by the needle to wipe such needle prior to its passage through the breastplate, and thus free the needle of any straw that may be carried thereby, so that there will be no liability of straws being interwoven with the knot, as is frequently the case.

In the drawings, Figure 1 is a view showing my invention applied to a grain-binder of ordinary construction, such view illustrating the parts adjacent to the breastplate by which the needle-clearing spring is carried. Fig. 2 is a bottom plan view of one form of breastplate with the clearing-spring attached; and Figs. 3 and 4 are views of different forms or shapes of the needle-clearing spring, Fig. 3 showing the form of spring used with the Plano self-binder and Fig. 4 that used with the Deering binder.

Referring to the drawings, Fig. 1, A is the binding table or deck; B, the breastplate, having therethrough a longitudinal slot, and to such breastplate the standard for the knotter-shaft is usually secured. The needle C is mounted on a shaft C'. The above-mentioned parts being of ordinary construction will be readily understood by those skilled in the art.

The breastplates will vary as to shape in different types of machines, and in applying my invention the shape of the spring will be varied to conform with the shape of the breastplate adjacent to the slot therethrough, as well as to the shape of the part that engages the beam or support for the forward part of the breastplate—for instance, with a breastplate

as used with the Deering and with the Plano binders the needle-clearing spring will be shaped as indicated by Fig. 3 of the drawings, and minor changes may be made to adapt my invention to other types of self-binders. The needle-clearing spring E is formed from a single piece of spring-wire and has side arms or members *e e*, and where the arms or members join there is formed an eye or coil *f*, through which one of the bolts that also connect the breastplate to its support may be used to hold the spring E in place. Instead of an eye *f* a loop *f''* may be formed, the open end of the loop being closed by a band *f'*, the ends of such band being connected by a rivet *f''*. The arms of the needle-clearing spring lie parallel to each other and in line with the slot through the breastplate except when spread by the needle.

In practice the needle C after passing through the deck A, upon which the grain is gathered, engages the inner sides of the arms or members *e e*, pressing the same apart, so that as the needle C passes between the arms they will engage or wipe the needle, so as to remove therefrom any straw that may be entangled between the needle and the binding-twine, so that the arms will clear the needle and prevent any straw being carried through the slot in the breastplate to the knotter.

The flanges *g g*, (see Fig. 2,) that depend from the breastplate adjacent to the slot therethrough, will prevent the one-piece spring being turned sidewise upon the bolt and will limit the movement of the arms of the spring away from each other, and when a loop, as *f''*, is present the band *f'* will prevent the loop being spread when the attaching-bolt is forced through such loop.

Having thus set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A cord-binding harvester having a needle and a slotted breastplate that is provided on its under side adjacent to the longitudinal edges of the slot with depending flanges and beyond the end of the slot with an aperture for the passage of a bolt, in combination with a needle-clearing spring that is mounted to partially overlie the slot through the breastplate, the spring having similarly-shaped side members and at one end an eye through which is passed a bolt that holds the spring between the depending flanges of the breastplate, substantially as shown.

2. The combination in a cord-binding har-

vester, of a needle and a longitudinally-slotted
breastplate through which the needle passes,
a bifurcated spring attached to the breast-
plate so that its arms will underlie the slot
5 through the breastplate, the spring adjacent
to its return-bend being encircled by a band,
substantially as shown.

In testimony whereof I have signed my
name to this specification in the presence of
two subscribing witnesses.

SHEPHERD W. BERRY.

Witnesses:

HUGH BLAIR,
N. O. STEVENS.